

**Directory of Collections
of
Micro - Organisms
and
List of Species
Maintained in India**



**COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH
NEW DELHI
1953**

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of
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and
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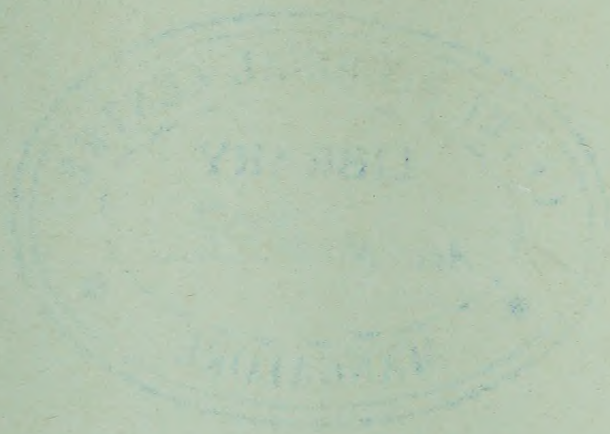


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INTRODUCTION

The Biochemical Research Committee of the Council of Scientific and Industrial Research, New Delhi, at its meeting in January 1946 recommended the preparation of a consolidated list of type cultures available in India. In August 1947, the British Commonwealth Specialist Conference on Culture Collections of Micro-organisms recommended the publication of a directory of important culture collections in the Commonwealth to be followed by the preparation and distribution of catalogues for institutions maintaining important collections. In implementation of these recommendations Directories of Collections were issued by the U.K. and by New Zealand in 1951. For Canada a combined Directory and Catalogue has been published.

The present publication for India is prepared on the lines of the Directories of Collections and List of Species for the U.K. and New Zealand; the information contained in it was received in response to a questionnaire, the form of which was suggested by the Permanent Committee of the British Commonwealth Collections of Micro-organisms.

The publication consists of two parts. The first part is a directory of the various culture collections in India listed with Code Nos. 600-699 allotted to the Indian Collections by the Permanent Committee. The second part gives the lists of micro-organisms maintained in the above collections classified, in general, according to the system followed in previous lists of Commonwealth Collections. After an index of main types of organisms, classified broadly according to interest, the micro-organisms are listed by genera in alphabetical order. For bacteria the nomenclature of Bergey's Manual of Determinative Bacteriology (sixth edition) is used, synonyms in common use being given in brackets. Viruses are referred to only by common names. For yeasts the nomenclature of J. Lodder and N. W. J. Kreger—*The yeasts, a Taxonomic Study*—has been followed. The numerals after each species name are the code numbers of collections maintaining the organism.

It is intended that this Directory should be followed by catalogues, at least for the larger of the individual collections, giving fuller information on details of isolation and identification.

This Directory was prepared for the Council of Scientific and Industrial Research by the staff of the National Collection of Industrial Micro-organisms at the National Chemical Laboratory of India, Poona-8.

NUMERICAL LIST OF COLLECTIONS

CODE No.	NAME OF COLLECTION	PAGE
600	Agricultural Research Institute, Coimbatore ..	5
601	Ajudhia Distillery, Raja-ka-Sahaspur ..	5
602	Albert David Ltd., Calcutta ..	5
603	Alembic Chemical Works Co., Ltd., Baroda ..	5
604	Andhra Medical College, Visakhapatnam ..	5
605	Armed Forces Medical College, Poona ..	6
606	Banaras Hindu University, Banaras ..	6
607	Behar Sugar Works Distillery, Behar ..	6
608	Bengal Chemical and Pharmaceutical Works Ltd., Calcutta ..	6
609	Birla College of Sciences, Pilani ..	6
610	B.J. Medical College, Ahmedabad ..	7
611	B. J. Medical College, Poona ..	7
612	Bombay Veterinary College, Bombay ..	7
613	Bose Institute, Darjeeling ..	7
614	Carmichael Medical College, Calcutta ..	7
615	Central Drug Research Institute, Lucknow ..	8
616	Central Food Technological Research Institute, Mysore	8
617	Central Inland Fisheries Research Station, Calcutta ..	8
618	Central Marine Fisheries Research Station, Mandapam ..	8
619	Central Potato Research Institute, Patna ..	8
620	Central Research Institute, Kasauli ..	9
621	Central Rice Research Institute, Cuttack ..	9
622	Chemo Pharma Laboratories Ltd., Bombay ..	9
623	Christian Medical College Hospital, Vellore ..	9
624	College of Agriculture, Poona ..	9
625	Delhi University, Delhi ..	10
626	Department of Chemical Technology, Bombay ..	10
627	Department of Nutrition, Bombay ..	10
627A	Food Technology Laboratory, Calcutta ..	10
628	Forest Research Institute, Dehra Dun ..	10
629	Fresh Water Biological Station, Madras ..	11
629A	Government Agricultural College, Ludhiana ..	11
630	Government Central Distillery, Nasik Road ..	11
631	Government Vaccine Institute, Bangalore ..	11
632	Haffkine Institute, Bombay ..	11
633	Indian Type Culture Collection of Fungi, New Delhi ..	12
634	Indian Dairy Research Institute, Bangalore ..	12
635	Indian Institute of Science, Bangalore ..	12

636	Indian Institute of Sugar Technology, Kanpur	..	12
637	Indian Jute Mills Association Research Institute, Calcutta	13
638	Jeypore Sugar Co., Ltd., Rayagada	..	13
639	Jute Agricultural Research Institute, Barrackpore	..	13
640	King Institute of Preventive Medicine, Madras	..	13
640A	Kolhapur Sugar Mills Ltd., Kolhapur	..	14
641	Malaria Institute of India, Delhi	..	14
641A	M. G. M. Medical College, Indore	..	14
642	Microbiological Laboratory, Calcutta	..	14
643	Mysore Serum Institute, Bangalore	..	14
644	Mysore Sugar Co. Ltd., Distillery, Mandya	..	15
645	National Collection of Industrial Micro-organisms, Poona	15
646	Nutrition Research Laboratories, Coonoor	..	15
647	Osmania University, Hyderabad	..	15
648	Osmania University, Hyderabad	..	16
649	Pasteur Institute of Southern India, Coonoor	..	16
650	Pasteur Institute of West Bengal, Calcutta	..	16
651	Plant Pathological Laboratory, Jorhat	..	16
652	Provincial Bacteriological Laboratory, Amritsar	..	16
653	Public Health Laboratory, Poona	..	17
654	Pure Products and Madhu Canning Ltd., Bombay	..	17
655	Raptokos Brett and Co., Ltd., Bombay	..	17
656	Saugar University, Saugar	..	17
657	S. C. B. Medical College, Cuttack	..	17
659	Seth G. S. Medical College, Bombay	..	18
660	Shamli Distillery and Chemical Works Laboratory, Shamli	18
661	Sheila Dhar Institute of Soil Science, Allahabad	..	18
662	State Agricultural Institute, Calcutta	..	18
663	State Public Health Laboratory, Patna	..	18
664	Technical Development Establishment Laboratories, Kanpur	19
665	Topiwala National Medical College, Bombay	..	19
666	University Biochemical Laboratory, Madras	..	19
667	University Botany Laboratory, Madras	..	19
668	University Department of Biochemistry, Nagpur	..	19
669	Vaccine Institute, Belgaum	..	20
670	Veterinary College, Hissar	..	20
671	Veterinary Research Institute of India, Mukteswar-Kumaun	20
672	Veterinary Science and Animal Husbandry College, Mathura	20
673	Walchandnagar Distillery, Bombay	..	20

INDEX OF MAIN TYPES OF ORGANISMS

The numbers opposite the several types of organisms indicate the code numbers of the collections maintaining them. For a numerical list of code numbers, see page 1.

Algae, 617, 629, 647

Animal pathogens, 602, 604, 605,
608, 609, 610, 611, 612, 615,
618, 620, 623, 626, 631, 632,
634, 635, 640, 641, 641A, 642,
643, 649, 650, 652, 653, 657,
659, 663, 665, 666, 669, 670,
671, 672

Antibiotic production, 614, 633,
635, 642, 645

Bacteria, 602, 603, 604, 605, 606,
608, 609, 610, 611, 612, 613, 615,
616, 618, 620, 622, 623, 624,
626, 627, 627A, 629A, 631,
632, 633, 634, 635, 636, 637,
639, 640, 641A, 642, 643, 645,
646, 649, 651, 652, 653, 654,
655, 657, 659, 662, 663, 664,
665, 666, 668, 670, 671, 672

Dairy and food, 616, 626, 627A,
634, 635, 636, 654

Fungi, 600, 602, 603, 606, 609, 614,
616, 619, 621, 622, 624, 625,
626, 627A, 628, 633, 634, 635,
636, 637, 639, 642, 645, 646,
648, 651, 655, 656, 662, 664,
666, 667, 668

Industrial fermentation, 601, 602,
603, 607, 614, 616, 622, 626,
630, 633, 634, 635, 636, 638,
642, 644, 645, 646, 654, 660,
661, 666, 670

Microbiological chemistry, 602,
603, 609, 614, 615, 616, 620,
622, 626, 627, 634, 635, 636,
642, 645, 646, 653, 655, 666

Plant pathogens, 600, 613, 614,
619, 621, 624, 625, 628, 637,
639, 642, 648, 651, 656, 662,
664, 667

Protozoa, 617, 641, 647, 659, 671

Viruses, 605, 613, 615, 620, 629,
631, 643, 649, 650, 669, 671

Yeasts, 600, 601, 606, 607, 616,
622, 626, 627A, 630, 633, 634,
635, 636, 638, 640A, 642, 644,
645, 654, 655, 660, 661, 662,
668, 673

LIST OF COLLECTIONS

CODE
No.

- 600 AGRICULTURAL RESEARCH INSTITUTE, Mycology Laboratory, Lawley Road P.O., Coimbatore (Madras State).
Microbiologist : T. S. Ramakrishnan
Interests : agricultural and research
Organisms : fungi, and yeasts; 150
Maintenance : in lifeless media
Distribution : on request (for a fee) or in exchange
- 601 AJUDHIA DISTILLERY, Raha-ke-Sahaspur, Moradabad Distt. (U.P.).
Works Manager : N. K. Bali
Interest : industrial
Organisms : yeasts
Maintenance : in lifeless media
- 602 ALBERT DAVID LTD., 5/11, D. Gupta Lane, Calcutta-2.
Director : Dr. S. L. Mukherjee
Interests : industrial, medical, research
Organisms : bacteria and fungi; 8
Maintenance : in lifeless media
Distribution : personal favour
- 603 ALEMBIC CHEMICAL WORKS CO., LTD., Microbiological Laboratory, Baroda-3.
Interests : industrial, medical, research
Organisms : bacteria and fungi; 3
Maintenance : in lifeless media
- 604 ANDHRA MEDICAL COLLEGE, Visakhapatnam (Madras State).
Professor in charge : Dr. P. N. Rao
Interests : medical and research
Organisms : bacteria
Maintenance : in lifeless media, eggs, animals and frozen state

605 ARMED FORCES MEDICAL COLLEGE, Pathology Dept.,
Poona-1.

Commandant : Brigadier A. K. Gupta
Interests : medical and research
Organisms : bacteria, 169; animal viruses, 5
Maintenance : in lifeless media, tissue cultures,
embryonated eggs, and animals
Distribution : on request (for a fee)

606 BANARAS HINDU UNIVERSITY, Department of Pharma-
ceutics, Banaras.

Professor in charge : Dr. N. C. Neogi
Interests : industrial, medical, research
Organisms : bacteria, fungi, yeasts
Maintenance : in lifeless media

607 BEHAR SUGAR WORKS DISTILLERY, Pachrukhi, Saran
Disttt. (Bihar).

Microbiologist : E. N. Parthasarathy
Interest : industrial
Organisms : yeast; 1
Maintenance : in lifeless media
Distribution : on request

608 BENGAL CHEMICAL AND PHARMACEUTICAL WORKS
LTD., Biology Department, Calcutta-11.

Microbiologist : Dr. S. N. Ghosh
Interests : industrial, medical, research
Organisms : bacteria and bacteriophages; 96
Maintenance : in lifeless media
Distribution : on request (for a fee) or in
exchange

609 BIRLA COLLEGE OF SCIENCES, Division of Pharmacy,
Pilani (Rajasthan).

Microbiologist : K. Lakshminarayanan
Interests : industrial, medical, research
Organisms : bacteria, 7; fungi, 5
Maintenance : in lifeless media
Distribution : on request

610 B. J. MEDICAL COLLEGE, Pathology Department, Ahmedabad (Bombay State).

Professor of Pathology : Dr. Y. M. Bhenda

Interest : medical

Organisms : bacteria; 22

Maintenance : in lifeless media

Distribution : on request

611 B. J. MEDICAL COLLEGE, Department of Pathology and Bacteriology, Poona-1.

Professor in charge : Dr. P. G. Gollerkeri

Interests : medical and teaching

Organisms : bacteria; 30

Maintenance : in lifeless media

Distribution : on request

612 BOMBAY VETERINARY COLLEGE, Bacteriological Laboratory, Parel, Bombay.

Officer in charge : Professor of Bacteriology

Interest : veterinary

Organisms : bacteria; 37

Maintenance : in lifeless media

Distribution : on request

613 BOSE INSTITUTE, Mayapuri Research Station, Acharya Jagadish Chandra Road, Darjeeling (West Bengal).

Microbiologist : Dr. A. Ganguly

Interest : agricultural

Organisms : plant viruses, 5; bacteria, 9

Maintenance : bacteria in lifeless media and
viruses in living plants

Distribution : on request

614 CARMICHAEL MEDICAL COLLEGE, Botanical Laboratory, Calcutta.

Director : Dr. S. R. Bose

Interests : industrial, medical, research

Organisms : fungi; 100

Maintenance : in paraffin oil, and at 4°C. in
Mckarty's screw capped phials

Distribution : on request and personal favour

615 CENTRAL DRUG RESEARCH INSTITUTE, Chattar Manzil Palace (Council of Scientific and Industrial Research), Lucknow (U.P.).

Director : Dr. B. Mukerji
Interests : industrial, medical, research
Organisms : bacteria, 88; animal viruses, 6
Maintenance : in lifeless media, tissue cultures, embryonated eggs, in animals and in the frozen state
Distribution : on request

616 CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE, Microbiology and Sanitation Division (Council of Scientific and Industrial Research), Mysore.

Director : Dr. V. Subrahmanyam
Microbiologist : Dyal Singh Johar
Interests : agricultural, industrial, medical, research
Organisms : bacteria, 20; fungi, 11; yeasts, 36
Maintenance : in lifeless media
Distribution : on request (for a fee)

617 CENTRAL INLAND FISHERIES RESEARCH STATION, Barrackpore P.O., Calcutta.

Chief Research Officer : Dr. H. Srinivasa Rao
Interest : research
Organisms : algae and protozoa
Distribution : on request

618 CENTRAL MARINE FISHERIES RESEARCH STATION, Mandapam Camp P.O. (S. India).

Chief Research Officer : Dr. N. K. Panikkar
Bacteriologist : N. K. Velankar
Interests : industrial and research (fish preservation)
Organisms : bacteria; 50
Maintenance : in lifeless media

619 CENTRAL POTATO RESEARCH INSTITUTE, Patna (Bihar).

Director : Dr. S. Ramanujam
Microbiologist : Dr. M. J. Thirumalachar
Interests : agricultural and research
Organisms : fungi, 15; potato pathogens
Maintenance : in lifeless media
Distribution : on request

620 CENTRAL RESEARCH INSTITUTE, Kasauli, Punjab (I).

Director : Lt. Colonel M. L. Ahuja
Interests : medical and research
Organisms : bacteria and animal viruses; 300
Maintenance : in nutrient media, in animals, embryonated eggs, frozen and lyophilized (Edwards' method)
Distribution : without fee to international bodies or laboratories; others on request (for a fee)

This Institute serves as the Government of India's National Collection of Type Cultures of organisms of medical and public health interest.

621 CENTRAL RICE RESEARCH INSTITUTE, Cuttack-4 (Orissa).

Director : Dr. N. Parthasarathy
Interests : agricultural and research
Organisms : fungi (pathogenic on rice), 65
Maintenance : in lifeless media
Distribution : on request

622 CHEMO PHARMA LABORATORIES LTD., King's Lodge, Byculla, Bombay.

Microbiologist : F. X. Lobo
Interests : industrial and research
Organisms : bacteria, 8; fungi, 19; yeasts, 3
Maintenance : in oil, soil and refrigerated stocks (5-15°C.)
Distribution : on request

623 CHRISTIAN MEDICAL COLLEGE HOSPITAL, Bacteriological Laboratory, Vellore, North Arcot Distt. (Madras State).

Microbiologist : Dr. (Miss) Ruth M. Myres
Interest : medical
Organisms : bacteria; 20
Maintenance : in lifeless media
Distribution : on request (for a fee)

624 COLLEGE OF AGRICULTURE, Plant Pathology Section, Poona-5.

Plant Pathologist : Dr. M. K. Patel
Interest : agricultural
Organisms : bacteria and fungi; 100
Maintenance : in lifeless media
Distribution : on request or in exchange

625 DELHI UNIVERSITY, Department of Botany, Delhi-8.

Microbiologist : S. D. Sanwal
Interest : research
Organisms : fungi; 74
Maintenance : in lifeless media
Distribution : on request

626 DEPARTMENT OF CHEMICAL TECHNOLOGY, Food Technology Section, University of Bombay, Matunga, Bombay-19.

Microbiologist : Dr. A. Sreenivasan
Interest : research
Organisms : bacteria, 11; fungi, 17; yeasts, 2
Maintenance : in lifeless media
Distribution : on request (for a fee)

627 DEPARTMENT OF NUTRITION, c/o. Haffkine Institute, Parel, Bombay-12.

Director : Dr. M. V. Radhakrishna Rao
Interest : research
Organisms : bacteria; 15
Maintenance : dried-lyophilization

627A FOOD TECHNOLOGY LABORATORY, College of Engineering and Technology, Calcutta-32.

Director : Dr. A. N. Bose
Interests : agricultural, medical, research
Organisms : bacteria, fungi, yeasts; 30
Maintenance : in lifeless media
Distribution : on request

628 FOREST RESEARCH INSTITUTE, Mycology Branch, New Forest, Dehra Dun (U.P.).

Head of the Division

of Mycology : Dr. K. Bagchee
Interests : research, agricultural, industrial, medical
Organisms : fungi; 284
Maintenance : on neutral malt agar, paraffin oil, in living plants as well as in the frozen state
Distribution : on request (for a fee)

The collection of fungi is representative of all the parts and climes of India.

629 FRESH WATER BIOLOGICAL STATION, 951, Poonamallee High Road, Kilpauk, Madras-10.

Asst. Director : P. I. Chacko
Interest : development of inland fisheries
Organisms : algae; 10
Maintenance : in lifeless media

629A GOVERNMENT AGRICULTURAL COLLEGE, Bacteriological Laboratory, Ludhiana, Punjab (I).

Microbiologist : Dr. M. R. Madhok
Interest : agricultural
Organisms : bacteria
Maintenance : in lifeless media
Distribution : on request (for a fee)

630 GOVERNMENT CENTRAL DISTILLERY, Nasik Road (Bombay State).

Officer in charge : The Superintendent
Interest : industrial
Organisms : yeasts; 1
Maintenance : mohua juice media
Distribution : on request (for a fee)

631 GOVERNMENT VACCINE INSTITUTE, Lalbagh Road, Bangalore-2 (Mysore State).

Superintendent : Dr. V. N. Krishnamurthy
Interests : medical and research
Organisms : animal viruses
Maintenance : in tissue cultures, embryonated eggs, in animals and in the frozen state
Distribution : on request

632 HAFFKINE INSTITUTE, Parel, Bombay-12.

Director : Dr. P. M. Wagle
Interests : medical and research
Organisms : bacteria and animal viruses; 69
Maintenance : freeze dried, embryonated eggs and in animals
Distribution : bacteria on request (for a fee); virus strains are not issued.

633 INDIAN TYPE CULTURE COLLECTION OF FUNGI, Division of Mycology and Plant Pathology, Indian Agricultural Research Institute, New Delhi-12.

*Head of the Division of
Mycology and Plant
Pathology :*

Dr. R. S. Vasudeva

Interests :

agricultural, research and teaching

Organisms :

bacteria, fungi and yeasts; 850

Maintenance :

in lifeless media

Distribution :

on request (for a fee) or in exchange

The collection is a member of the International Federation of Culture Collections.

634 INDIAN DAIRY RESEARCH INSTITUTE, Dairy Bacteriology Section, Hosur Road, Bangalore-1 (Mysore State).

Director :

Dr. K. C. Sen

Dairy Bacteriologist :

Dr. K. K. Iya

Interests :

agricultural, veterinary, research

Organisms :

bacteria, fungi, and yeasts; 230

Maintenance :

in lifeless media

Distribution :

on request to scientists and for a fee to others

635 INDIAN INSTITUTE OF SCIENCE, Department of Biochemistry, Bangalore-3 (Mysore State).

In charge of yeasts :

Dr. M. K. Subramanian

In charge of fungi :

Dr. P. L. Narasimha Rao

In charge of bacteria :

T. K. Wadhwani

Interest :

research

Organisms :

yeasts, 60; bacteria, 50; fungi and protozoa, 22

Maintenance :

in lifeless media

Distribution :

on request

636 INDIAN INSTITUTE OF SUGAR TECHNOLOGY, Kanpur (U.P.).

Director :

Dr. J. M. Saha

Microbiologist :

J. P. Shukla

Interests :

industrial and research

Organisms :

bacteria, 3; fungi, 7; yeasts, 8

Maintenance :

on agar slants

Distribution :

on request (for a fee)

637 INDIAN JUTE MILLS ASSOCIATION RESEARCH INSTITUTE, 3, Taratola Road, Calcutta-27.

Director : Dr. W. G. Macmillan
Microbiologist : Dr. S. N. Basu
Interests : industrial and research
Organisms : fungi; 100
Maintenance : in lifeless media
Distribution : on request

Cultures mostly isolated by the Institute, a few obtained from foreign collections.

638 JEYPORE SUGAR CO. LTD., Rayagada, Koraput Distt. (Orissa).

Distillery Chief
Chemist : G. Ramachandar
Interest : industrial
Organisms : yeasts; 12
Maintenance : in the frozen state
Distribution : on request

639 JUTE AGRICULTURAL RESEARCH INSTITUTE, Barrackpore (West Bengal).

Director : Dr. B. C. Kundu
Interest : agricultural
Organisms : bacteria and fungi
Maintenance : synthetic media; dried specimens
on killed host tissues
Distribution : on request

640 KING INSTITUTE OF PREVENTIVE MEDICINE, Guindy, Madras-15.

Director : Dr. Y. S. Narayana Rao
Interests : medical, research, veterinary
Organisms : bacteria and bacteriophages; 468
Maintenance : in lifeless media, animals and also
in the lyophilized state
Distribution : on request (for a fee)

High titre sera for various pathogenic organisms are prepared.

640A KOLHAPUR SUGAR MILLS LTD., Kasaba Bavada, P.O., New Palace, Kolhapur (Bombay State).

Interest : industrial
Organisms : yeasts
Maintenance : in lifeless media

641 MALARIA INSTITUTE OF INDIA, 22, Alipore Road, Delhi-8.

Director : Lt. Col. Jaswant Singh
Interests : medical, research, veterinary
Organisms : protozoa; 5
Maintenance : in embryonated eggs
Distribution : on request

641A M. G. M. MEDICAL COLLEGE, Department of Pathology and Bacteriology, Indore (M.B.).

Professor in charge : Dr. C. Mohan Rangam
Interests : medical and research
Organisms : bacteria
Maintenance : in lifeless media
Distribution : personal favour

642 MICROBIOLOGICAL LABORATORY, Bose Institute, Calcutta-9.

Microbiologist : Dr. P. N. Nandi
Interests : medical and research
Organisms : bacteria, fungi and yeasts; 650
Maintenance : in lifeless media
Distribution : on request and personal favour

643 MYSORE SERUM INSTITUTE, Hebbal, Bangalore (Mysore State).

Superintendent : V. S. Kuppuswamy Mudaliar
Interests : veterinary, research, agriculture
Organisms : bacteria and animal viruses
Maintenance : in lifeless media, animals and embryonated eggs
Distribution : on request or in exchange

This is a specialized laboratory for work on animal bacteriology, pathology, parasitology and serology. Any other institution in India may seek help from the research sections of this Institute.

644 MYSORE SUGAR CO. LTD., DISTILLERY, Mandya (Mysore State).

<i>Microbiologist :</i>	G. Narashima Iyengar
<i>Interest :</i>	industrial
<i>Organisms :</i>	yeasts; 50
<i>Maintenance :</i>	lifeless media
<i>Distribution :</i>	on request

The type of yeast is one of high alcohol tolerance, producing up to 12 per cent alcohol by volume and is a hybrid evolved in this Distillery under the name of GN/1942-C.

645 NATIONAL COLLECTION OF INDUSTRIAL MICRO-ORGANISMS, National Chemical Laboratory (Council of Scientific and Industrial Research), Poona-8.

<i>Director :</i>	Professor G. I. Finch, F.R.S.
<i>In charge of collection :</i>	Dr. M. Damodaran, Head of the Division of Biochemistry
<i>Microbiologist :</i>	T. N. Ramachandra Rao
<i>Interests :</i>	industrial and research
<i>Organisms :</i>	bacteria, yeasts, and fungi; 750
<i>Maintenance :</i>	in lifeless media and soil
<i>Distribution :</i>	on request

646 NUTRITION RESEARCH LABORATORIES, Indian Council of Medical Research, Coonoor (S. India).

<i>Director :</i>	Dr. V. N. Patwardhan
<i>Microbiologist :</i>	Dr. P. K. Vijayaraghavan
<i>Interest :</i>	research
<i>Organisms :</i>	bacteria, 10; fungi, 4
<i>Maintenance :</i>	in lifeless media
<i>Distribution :</i>	on request

The micro-organisms are maintained for the micro-biological assays of various nutrients.

647 OSMANIA UNIVERSITY, Hydrobiological Section, Department of Botany, Hyderabad (Deccan).

<i>Microbiologist :</i>	Dr. M. R. Suxena
<i>Interest :</i>	research
<i>Organisms :</i>	algae and protozoa; 25
<i>Maintenance :</i>	in aqueous media and agar media

648 OSMANIA UNIVERSITY, Plant Pathology Section, Department of Botany, Hyderabad-5 (Deccan).

Microbiologist : Dr. M. Abdus Salam
Interest : research
Organisms : fungi; 19
Maintenance : in lifeless media

649 PASTEUR INSTITUTE OF SOUTHERN INDIA, Coonoor (S. India).

Director : Dr. N. Veeraraghavan
Interests : medical and research
Organisms : bacteria and animal viruses
Maintenance : in lifeless media, in tissue cultures, embryonated eggs, and in animals; viruses are lyophilized in Edwards' centrifugal freeze drier
Distribution : on request

650 PASTEUR INSTITUTE OF WEST BENGAL, School of Tropical Medicine Building, Calcutta-12.

Superintendent : Dr. J. Banerjee
Interests : medical and veterinary
Organisms : animal viruses (Rabis)
Maintenance : in animals
Distribution : on request (for Institutes preparing anti-rabis vaccine)

651 PLANT PATHOLOGICAL LABORATORY, Jorhat (Assam).

Microbiologist : S. Chowdhury
Interest : agricultural
Organisms : bacteria, fungi
Maintenance : in lifeless media
Distribution : on request (for a fee)

652 PROVINCIAL BACTERIOLOGICAL LABORATORY, Department of Pathology, Medical College, Amritsar, Punjab (I).

Microbiologist : Dr. Manmohan Singh
Interests : medical, research, teaching
Organisms : bacteria; 40
Maintenance : in lifeless media
Distribution : on request (for a fee)

653 PUBLIC HEALTH LABORATORY, Government of Bombay,
Stenely Road, Poona-1.

Asst. Director : Dr. S. T. Rodda
Interests : medical and research
Organisms : bacteria; 6
Maintenance : in lifeless media
Distribution : on request

654 PURE PRODUCTS AND MADHU CANNING LTD., Research
and Control Laboratory, Worli, Bombay-18.

Chief Technologist : Dr. H. A. B. Parpia
Interests : agricultural, industrial, research
Organisms : bacteria, 1; yeast, 1
Maintenance : in lifeless media
Distribution : on request

655 RAPTAKOS, BRETT AND CO. LTD., Research and Control
Division, Worli, Bombay-18.

Head of the Division : Dr. G. B. Ramasarma
Interests : industrial and research
Organisms : bacteria, 11; fungi, 4; yeasts, 2
Maintenance : in lifeless media
Distribution : personal favour

656 SAUGAR UNIVERSITY, Mycological Section of the Department
of Botany, Saugar (M.P.).

Microbiologist : S. B. Saksena
Interests : teaching and research on soil and
aquatic fungi
Organisms : fungi; 75
Maintenance : agar media and hemp seeds for
aquatic fungi
Distribution : personal favour or in exchange

657 S. C. B. MEDICAL COLLEGE, Department of Pathology,
Cuttack (Orissa).

Professor in charge : Dr. J. C. Dutta
Interest : medical
Organisms : bacteria; 20
Maintenance : in lifeless media
Distribution : on request

- 659 SETH G. S. MEDICAL COLLEGE, Pathology and Bacteriology Department, Parel, Bombay-12.
- | | |
|----------------------------|---|
| <i>Officer in charge :</i> | Professor of Pathology and Bacteriology |
| <i>Interests :</i> | medical and research |
| <i>Organisms :</i> | bacteria, bacteriophages and protozoa; 55 |
| <i>Maintenance :</i> | in lifeless media, in animals and in frozen state |
| <i>Distribution :</i> | on request |
- 660 SHAMLI DISTILLERY AND CHEMICAL WORKS LABORATORY, Shamli, S.S.Rly.
- | | |
|-------------------------|-------------------|
| <i>Microbiologist :</i> | M. C. Chattarpati |
| <i>Interest :</i> | industrial |
| <i>Organisms :</i> | yeast; 1 |
| <i>Maintenance :</i> | in lifeless media |
| <i>Distribution :</i> | on request |
- 661 SHEILA DHAR INSTITUTE OF SOIL SCIENCE, University of Allahabad, Beli Road, Allahabad (U.P.).
- | | |
|-----------------------|------------------------------------|
| <i>Director :</i> | Dr. N. R. Dhar |
| <i>Interests :</i> | agricultural, industrial, research |
| <i>Organisms :</i> | yeasts; 100 |
| <i>Maintenance :</i> | in lifeless media |
| <i>Distribution :</i> | personal favour |
- 662 STATE AGRICULTURAL INSTITUTE, Mycological Laboratory, Tollygunge, Calcutta-33.
- | | |
|-------------------------|---------------------------------|
| <i>Microbiologist :</i> | Dr. S. B. Chattopadhyay |
| <i>Interests :</i> | agricultural and research |
| <i>Organisms :</i> | bacteria, fungi, and yeasts; 36 |
| <i>Maintenance :</i> | in lifeless media |
| <i>Distribution :</i> | on request |
- 663 STATE PUBLIC HEALTH LABORATORY, Patna-4 (Bihar).
- | | |
|----------------------------|--------------------|
| <i>Officer in charge :</i> | Dr. L. R. Shah Deo |
| <i>Interest :</i> | medical |
| <i>Organisms :</i> | bacteria |
| <i>Maintenance :</i> | in lifeless media |
| <i>Distribution :</i> | on request |

664 TECHNICAL DEVELOPMENT ESTABLISHMENT LABORATORIES, Post Box No. 320, Kanpur (U.P.).

Superintendent in

<i>charge :</i>	Dr. T. S. Subramanian
<i>Interest :</i>	research on tropical deterioration
<i>Organisms :</i>	fungi and bacteria; 925
<i>Maintenance :</i>	in lifeless media
<i>Distribution :</i>	on request

Micro-organisms isolated during studies on deterioration of Service stores.

665 TOPIWALA NATIONAL MEDICAL COLLEGE, Department of Pathology and Bacteriology, Bombay-8.

<i>Professor in charge :</i>	Dr. L. Monterio
<i>Interest :</i>	medical
<i>Organisms :</i>	bacteria; 20
<i>Maintenance :</i>	in lifeless media
<i>Distribution :</i>	on request

666 UNIVERSITY BIOCHEMICAL LABORATORY, University of Madras, Alagappa Chettiar College of Technology, Madras-25.

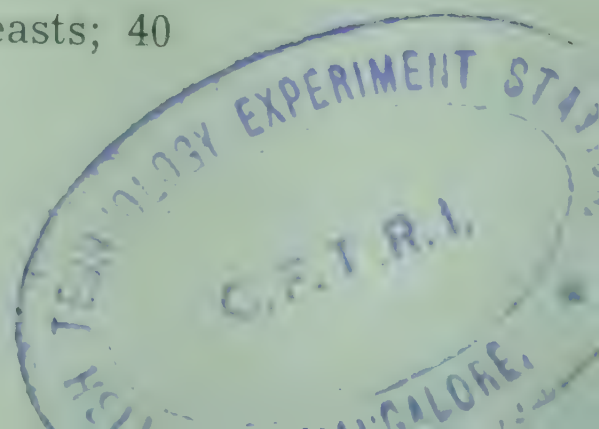
<i>Director :</i>	Dr. P. S. Sarma
<i>Interest :</i>	research
<i>Organisms :</i>	bacteria, 8; fungi, 14
<i>Maintenance :</i>	in lifeless media
<i>Distribution :</i>	personal favour

667 UNIVERSITY BOTANY LABORATORY, Triplicane, Madras-5.

<i>Director :</i>	Dr. T. S. Sadasivan
<i>Interest :</i>	plant pathological research
<i>Organisms :</i>	fungi; 50
<i>Maintenance :</i>	in lifeless media
<i>Distribution :</i>	on request

668 UNIVERSITY DEPARTMENT OF BIOCHEMISTRY, Nagpur (M.P.).

<i>Professor in charge :</i>	Dr. M. C. Nath
<i>Interest :</i>	research
<i>Organisms :</i>	bacteria, fungi, yeasts; 40
<i>Maintenance :</i>	in lifeless media



- 669 VACCINE INSTITUTE, Belgaum (Bombay State).
Director : Dr. R. S. Rao
Interests : medical and research
Organisms : animal viruses (vaccine virus); 2
Maintenance : in embryonated eggs and in animals
Distribution : on request (for a fee)
- 670 VETERINARY COLLEGE, Pathology Laboratory, Hissar, Punjab (I).
Officer-in-charge : Principal
Interest : veterinary
Organisms : bacteria; 10
Maintenance : in lifeless media
- 671 VETERINARY RESEARCH INSTITUTE OF INDIA, Pathology and Bacteriology Division, Mukteswar-Kumaun (U.P.).
Director : Dr. S. Dutta
Head of the Division of Pathology and Bacteriology : M. R. Dhanda
Interests : veterinary and research
Organisms : bacteria, animal viruses and protozoa; 90
Maintenance : in lifeless media, embryonated eggs, animals and freeze-dried
Distribution : on request to scientists; others (for a fee)
- 672 VETERINARY SCIENCE AND ANIMAL HUSBANDRY COLLEGE, Department of Pathology, Mathura (U.P.).
Principal : P. G. Pande
Interest : training in veterinary bacteriology
Organisms : bacteria; 20
Maintenance : in nutrient media and in the refrigerator
- 673 WALCHANDNAGAR DISTILLERY, Construction House, Ballard Estate, Fort, Bombay.
Director : C. Subramaniam
Interest : industrial
Organisms : yeasts
Maintenance : in lifeless media
Distribution : on request

LIST OF SPECIES

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S. faecalis, 615, 616, 620, 627, 634, 665
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S. lactis, 627, 634, 636, 649
S. paracitrovorus, 616
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S. pyogenes, see group A
S. scarlatinae, see group A
S. thermophilus, 634
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S. sp., 635, 640, 641A, 657, 672

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- S. sp.*, 635, 642

VIBRIO

V. alkaligenes see *Alkaligenes faecalis*

V. cholerae (*Vibrio comma*),
602, 608, 610, 611, 620*, 623,
640, 642, 663, 665

V.c. Inaba, 605*, 615*, 620*, 632,
649, 659

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V.c. Ogawa, 605, 615*, 620*, 632,
649, 659

V. el Tor, 615*, 620*

V. metchnikovi, 620

V. sp., 604, 618, 635, 645

* List of strains given below :

Vibrio and *Vibrio cholerae* strains in Collection No. 615

1. <i>Vibrio el Tor</i> B.1	32. <i>V.c.Ogawa</i> 560
2. " " " D.G.24	33. " 564
3. " " " 34.D.B.	34. " 49514
4. <i>V.c.Inaba</i> 52	35. " 59
5. " 74	36. " 60
6. " 113	37. " 61
7. " 119	38. " 368
8. " 123	39. " 378
9. " 132	40. " 425
10. " 194A	41. " 556
11. " 539	42. " 558
12. " 541	43. " 586
13. " 548	44. <i>V.c.Hikojima</i>
14. " 559	520
15. " 569B	45. <i>V.c.Rough</i> M.L.15
16. " 614	46. " 569 B
17. " 49514	47. " 49515
18. " 49524	48. Water <i>Vibrio</i> Kimboghat
19. " S12	49. " Tank
20. " S8	50. " Kahl
21. " S5	51. " N.A.G. 1
22. " 375	52. " " 2
23. " 384	53. " " 3
24. " 393	54. " " 4
25. " 399	55. " " 5
26. " 420	56. " " 6
27. " 502	57. " " 7
28. <i>V.c.Ogawa</i> 52	58. " " 8
29. " 123	59. " " 9
30. " 132	60. " " 10
31. " 558	

Vibrio and *Vibrio cholerae* strains in Collection No. 620

1. V.N.32/124 G.II	17. V.T.M.C.H. 367/3
2. V.N.32/123 G.III	18. V.P.I.S. 367
3. V.N.32/109 G.IV	19. V.L. 9/36
4. <i>V. el Tor</i> D.19 G.V.	20. V.L. 3/36
5. R. Rangoon Rough	21. V.L. 1/36
6. V. 1612	22. V.L.I. 10/5
7. V.T.M.C.H. 630/3/T	23. V.P.I.S. 984
8. V.T.M.C.H. 1123/2	24. V. W. Kohat original
9. V.T.M.C.H. 1805/1	25. V.C.T.M. 2898
10. V.T.M.C.H. 543/1	26. V.C.T.M. 2943
11. V.T.M.C.H. 353/3	27. V.C.T.M. 5780
12. V.T.M.C.H. 627/29/2	28. V. W. Tank I.A. (2074 D)
13. V.T.M.C.H. 627/2	29. V. W. Tank 4 B
14. V.T.M.C.H. 1158/1	30. <i>V. el Tor</i> Doornbos
15. V.T.M.C.H. 790/6	31. <i>E. el Tor</i> D.G. 18
16. V.T.M.C.H. 833/2/1	32. <i>E. el Tor</i> D.G. 25

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X. citri, 642

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X. sp., 624

Vibrio and Vibrio cholerae strains in Collection No. 620—continued

- | | |
|---------------------------------|------------------------|
| 33. <i>E. el Tor</i> D.G. 26 | 94. V.Ch.9466 |
| 34. V. W. Band | 95. V.Ch.232 |
| 35. V. W. Breweries (Kasauli) | 96. V.Ch.241 |
| 36. V. W. Kimboghath | 97. V.Ch.246 |
| 37. V. W. Nawa | 98. V.Ch.270 |
| 38. V. <i>el Tor</i> 34-D-18 | 99. V.Ch.227 |
| 39. V. <i>el Tor</i> 34-D-13 | 100. V.Ch.265 |
| 40. V. <i>el Tor</i> D.G. 17 | 101. V.Ch.269 |
| 41. V. <i>el Tor</i> D.G. 24 | 102. V.Ch.292 |
| 42. V.W./1800/1 | 103. V.Ch.481770 |
| 43. V.M./W/495/1 | 104. V.Ch.481771 |
| 44. V.M./W/k28T | 105. V.Ch.481772 |
| 45. V.M./W/211 | 106. V.Ch.481773 |
| 46. V.M./W/136T | 107. V.Ch.481774 |
| 47. V.M./W/139T | 108. V.Ch.481775 |
| 48. V.M./W/142 | 109. V.Ch.481444 |
| 49. V.W./880 Linton | 110. V.Ch.481445 |
| 50. V.M./W/1500/1 | 111. V.Ch.481453 |
| 51. V.M./W/1686/1 | 112. V.Ch.481482 |
| 52. V.M./W/160 | 113. V.Ch.481581 |
| 53. V.M./W/491/1 | 114. V.Ch.481582 |
| 54. V.M./W/166 | 115. N.I.H.35 |
| 55. V.B./W/488/3 | 116. N.I.H.35B |
| 56. V.B./W/104 | 117. N.I.H.35A3 |
| 57. V.B./W/499/1 | 118. N.I.H.35K |
| 58. V.Ch.Khulna I | 119. N.I.H.41 Smooth |
| 59. V.Ch.2812 | 120. N.I.H.41 Opaque B |
| 60. V.Ch.194/A | 121. N.I.H.41B |
| 61. V.Ch.191/A | 122. N.I.H.389 |
| 62. V.Ch.M.L.66 | 123. V.I.Morain |
| 63. V.Ch.242/A | 124. V.2.Farana |
| 64. V.Ch.2856/L | 125. V.3.Suez |
| 65. V.Ch.162/H | 126. V.4.Suez |
| 66. V. Ch.Ogawa T | 127. Port-Said 163 |
| 67. V.Ch.569 B | 128. Port-Said 285 |
| 68. V.Ch.11 | 129. Port-Said 289 |
| 69. V.Ch.C.L.91 | 130. Port-Said 291 |
| 70. V.Ch.C.L.93 | 131. Port-Said 296 |
| 71. V.Ch.C.L.94 | 132. Tintah |
| 72. V.Ch.9172 | 133. 8946 |
| 73. V.Ch.9175 | 134. 8990 |
| 74. V.Ch.9372 | 135. 10420 |
| 75. V.Ch.8258 | 136. 10440 |
| 76. V.Ch.9013 | 137. 12976 |
| 77. V.Ch.569B Rough | 138. 95656 |
| 78. V.Ch. Inaba R/D | 139. Ismallia 13 |
| 79. V.Ch.368/213A | 140. E Z 5 C.F. |
| 80. V.Ch.569 Smooth | 141. Eltor B.1 |
| 81. V.Ch.M.L.15 Smooth | 142. Eltor B.2 |
| 82. V.Ch.270/215 A | 143. B.4 |
| 83. V.Ch.534/380 A | 144. B.3 |
| 84. V.Ch.M.L. 4 Rough | 145. Eltor 4 |
| 85. V.Ch.370/215A Ogawa variant | 146. Makassar 676 |
| 86. V.Ch.M.L. 15 Rough | 147. Makassar 794 |
| 87. V.Ch.M.14.D | 148. Indi 653 |
| 88. V.Ch.M.L.66 Inaba variant | 149. V.b. 610 |
| 89. V.Ch.727 | 150. Indo-China 1927 |
| 90. V.Ch.443 | 151. Saigon 1046 |
| 91. V.Ch.443 | 152. Hanoi |
| 92. V.Ch.416 | 153. Shanghai 10 |
| 93. V.Ch.444 | |

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- A. butleri*, (+) & (—), 633
- A. coerulea*, 633
- A. cylindrospora*, 633
- A. glauca*, 600 (+) & (—), 633
- A. spinosa*, 633
- A. sp.*, 656

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- A. sp.*, 637

ACROSTALAGMUS

- A. cinnabarinus* see *Nectria inventa*
- A. sp.*, 656

ACROTHECIUM

- A. lunatum* see *Curvularia lunata*
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- A. sp.*, 628
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- A. flavus*, 633, 636, 637, 664
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- A. fumigatus*, 626, 633, 637, 645, 664
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- A. ochraceus*, 633
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